UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
SHINGLES, KRISTIE D

ART UNIT	PAPER NUMBER
2444	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 March 2009</u>.

2a)☐ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>50,52-58 and 60-91</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>50,52-58 and 60-91</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☒ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. *5/26/09* .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendments
Claims 1-49, 51 and 59 have been cancelled.
Claims 50, 52-58 and 60-71 have been amended.
Claims 72-91 have been newly added.

Claims 50, 52-58 and 60-91 are pending examination.

Response to Arguments

I.   Applicant's arguments filed 3/3/2009 with respect to claims 50, 58, 66, 70 and 71

have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter - Withdrawn

II.   The indicated allowability of claims 66-71 is withdrawn in view of the newly

discovered reference to *Cox et al* (US 6,738,814).   Therefore these claims and their

dependents are now rejected. Rejections based on the newly cited reference follows.

Claim Rejections - 35 USC § 102

III.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent granted
on an application for patent by another filed in the United States before the invention by the applicant
for patent, except that an international application filed under the treaty defined in section 351(a) shall
have the effects for purposes of this subsection of an application filed in the United States only if the
international application designated the United States and was published under Article 21(2) of such
treaty in the English language.

IV.   Claims 50-54, 58, 61, 62, 64-67, 69-82, 84-87 and 89-91 are rejected under 35 U.S.C. 102(e) as being anticipated by *Cox et al* (US 6,738,814).

      a.   **Per claim 50,** *Cox et al* teach a method for monitoring connection transactions with access providers, the method comprising:

- receiving, at an intermediary device a first connection transaction request from a requestor device that requests access to an access providing host (*col.3 lines 4-29 and 55-58—routing device receives private network access request from a requestor*);

- comparing, at the intermediary device, an identity of the requestor device to information identifying requestor devices from which the intermediary device has previously received a connection transaction request that resulted in a partially-completed connection transaction that reached a time out condition prior to receipt of an acknowledgement corresponding to the connection transaction request (*col.3 line 55-col.4 line 15—comparing the requester's IP address to other private network IP addresses and spoofed IP addresses that timed out before receiving an acknowledgement, the requester's connection transaction is partially-completed since no acknowledgement is made*); and

- blocking, at the intermediary device, the first connection transaction request to prevent the first connection transaction request from reaching the access providing host when the comparison reveals that the intermediary device previously received, from the requestor device, a connection transaction, request that resulted in a partially-completed connection transaction that reached a time out condition prior to receipt of an acknowledgement (*col.4 lines 16-27—blocking at the routing device the access request when the IP address matches with a previously received IP address that timed out prior to an acknowledgement, the requester's connection transaction is partially-completed since no acknowledgement is made*).

      b.   **Claim 58** differs merely by statutory class from claim 50 (device vs. method), yet contains limitations that are equivalent to claim 50 and are therefore rejected under the same basis.

      c.   **Per claim 66,** *Cox et al* teach a method of monitoring access requests to access providers comprising:

- observing, using an intermediary device other than an access providing host that assigns resources responsive to inbound access requests, information identifying a requestor based on receipt of the requestor's submission of an access request to a first access providing host (*col.3 lines 4-29 and 55-58—routing device receives and observes private network access request and identification indicia from a requestor*);

- accessing, using the intermediary device, stored information identifying previous requestors, of the first access providing host as well as of other access providing hosts, that are determined to have submitted a previous access request that has timed out prior to submission of an acknowledgement corresponding to the previous access request (*col.3 line 55-col.4 line 4, col.4 lines 62-67—comparing the IP address of the requestor device to other IP addresses that have time out prior to submitting an acknowledgement*);

- comparing, using the intermediary device, the observed information identifying the requestor to the stored information identifying previous requestors (*col.3 line 55-col.4 line 4, col.4 lines 62-67—comparing the IP address and packet header of request from the requestor to other stored IP addresses and routing data*); and

- when the comparison reveals that the requestor has submitted a previous access request that has timed out prior to submission of an acknowledgement corresponding to the previous access request, denying, using the intermediary device, the access request submitted by the requestor while denying passage of the access request to the first access providing host (*col.4 lines 16-27—blocking at the routing device the access request when the IP address matches with a previously received IP address that timed out prior to an acknowledgement*).

d.   **Claims 70 and 71** differ merely by statutory class from claim 66 (device

vs. method vs. storage medium), yet both contain limitations that are equivalent to claim

66 and are therefore rejected under the same basis.

e.   **Per claim 72,** *Cox et al* teach the method of claim 50 further comprising,

when the comparison reveals that the intermediary device has not previously received,

from the requestor device, a connection transaction request that resulted in a partially-

completed connection transaction that reached a time out condition prior to receipt of an

acknowledgement, determining, at the intermediary device, whether the first connection transaction results in a partially-completed connection transaction in which a time out condition is reached prior to receipt of an acknowledgement corresponding to the first connection transaction request (*col.4 lines 16-27—determination for whether requester access request reached timeout before receipt of an acknowledgement*).

      f.   **Claim 76** claims limitations that are equivalent in scope to the limitations of claim 72, and is therefore rejected under the same basis.

      g.   **Per claim 73,** *Cox et al* teach the method of claim 72 further comprising, in response to a determination that the first connection transaction request has reached a time out condition prior to receipt of an acknowledgement corresponding to the first connection transaction request, terminating the first connection transaction request (*col.4 lines 16-27—if a timeout has occurred, denying the request*).

      h.   **Claim 77** claims limitations that are equivalent in scope to the limitations of claim 73, and is therefore rejected under the same basis.

      i.   **Per claim 74,** *Cox et al* teach the method of claim 72 further comprising, in response to a determination that the first connection transaction request has reached a time out condition prior to receipt of an acknowledgement corresponding to the first connection transaction request, adding the identity of the requestor device to the information identifying one or more requestor devices to enable blocking of future connection transaction requests received from the requestor device (*col.4 lines 4-15—adding the requestor's IP address to a list to enable future blocking of requests*).

      j.   **Claim 78** claims limitations that are equivalent in scope to the limitations of claim 74, and is therefore rejected under the same basis.

k.   **Per claim 75,** *Cox et al* teach the method of claim 50 further comprising determining, at the intermediary device, the identity of the requestor device, wherein comparing, at the intermediary device, the identity of the requestor device to the information identifying the requestor devices comprises comparing, at the intermediary device, the determined identity of the requestor device to the information identifying one or more requestor devices (*col.3 line 55-col.4 line 4, col.4 liens 62-67—comparing the IP address of the requestor device to other IP addresses*).

l.   **Claim 79** claims limitations that are equivalent in scope to the limitations of claim 75, and is therefore rejected under the same basis.

m.   **Per claim 53,** *Cox et al* teach the method of claim 72 wherein determining, at the intermediary device, whether the first connection transaction request results in a partially-completed connection transaction in which a time out condition is reached prior to receipt of an acknowledgement corresponding to the first connection transaction request comprises: comparing, at the intermediary device, an amount of time that the intermediary device has been waiting for an acknowledgement corresponding to the first connection transaction request to a time out threshold (*col.4 lines 19-27—timeout threshold is the specific period of time for receiving an acknowledgment*).

n.   **Claim 61** claims limitations that are equivalent in scope to the limitations of claim 53, and is therefore rejected under the same basis.

o.   **Per claim 54,** *Cox et al* teach the method of claim 50 wherein, at the time of blocking the first connection transaction request, the intermediary device has not previously received, from the requestor device, a connection transaction request that requested access to the access providing host (*col.3 line 55-col.4 line 27*).

p.   **Claim 62** claims limitations that are equivalent in scope to the limitations

of claim 54, and is therefore rejected under the same basis.

q.   **Per claim 56,** *Cox et al* teach the method of claim 50 further comprising:

blocking, at the intermediary device, the first connection transaction request in response

to a determination that a return address included in the first connection transaction

request differs from an actual return address of the requestor device (*col.3 lines 4-66,*

col.4 lines 41-49; blocking the request when determined that the return address included

in the request is incorrect from the actual return address since the address is external but

is using an internal address).

r.   **Claims 64, 69, 84 and 89** claim limitations that are equivalent in scope to

the limitations of claim 56, and are therefore rejected under the same basis.

s.   **Per Claim 57,** *Cox et al* teach the method of claim 50 further comprising

wherein blocking, at the intermediary device, the first connection transaction request in

response to a determination that a return address included in the first connection

transaction request differs from an actual return address of the requestor device comprises

blocking, at the intermediary device, the first connection transaction request in response

to a determination that a return Internet protocol address included in the first connection

transaction request differs from an actual return Internet protocol address of the requestor

device (*col.3 lines 4-66, col.4 lines 41-49; blocking the request when determined that the*

return IP address included in the request is incorrect from the actual return IP address

since the IP address is external but is using an internal IP address).

t.   **Claim 65** claim limitations that are equivalent in scope to the limitations

of claim 57, and are therefore rejected under the same basis.

u.   **Per claim 67,** *Cox et al* teach the method of claim 66 wherein denying, using the intermediary device, the access request submitted by the requestor while denying passage of the access request to the first access providing host comprises denying, using the intermediary device, the access request submitted by the requestor when the comparison reveals that the requestor has submitted, previous access request that has timed out prior to submission of an acknowledgement corresponding to the previous access request based on a previous access request submitted to an access providing host other than the first access providing host (*col.3 lines 56-66, col.4 lines 4-61—if routing device determines that the requestor has submitted previous requests to a destination in the private network before submitting an acknowledgement, then denying the request*).

v.   **Claims 82 and 87** claim limitations that are equivalent in scope to the limitations of claim 67, and are therefore rejected under the same basis.

w.   **Per claim 80,** *Cox et al* teach the method of claim 66 further comprising, when the comparison reveals that the requestor has not submitted a previous access request that has timed out prior to submission of an acknowledgement corresponding to the previous access request, monitoring, using the intermediary device, a partially-completed connection transaction resulting from the access request to determine whether a time out condition occurs prior to requestor submission of an acknowledgement corresponding to the access request (*col.4 lines 16-27—determination for whether requester access request reached timeout before receipt of an acknowledgement*).

x.   **Claims 85 and 90** claim limitations that are equivalent in scope to the limitations of claim 80, and are therefore rejected under the same basis.

y.   **Per claim 81,** *Cox et al* teach the method of claim 80 further comprising, to the extent that a time out condition is determined to exist, adding, using the intermediary device, information identifying the requestor to the stored information identifying previous requestors for use in comparing against future requestors that submit an access request (*col.4 lines 4-15—adding the requestor's IP address to a list to enable future blocking of requests*).

z.   **Claims 86 and 91** claim limitations that are equivalent in scope to the limitations of claim 81, and are therefore rejected under the same basis.

Claim Rejections - 35 USC § 103

VII.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

VIII.   <u>**Claims 52, 60, 68, 83 and 88** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Cox et al* (US 6,738,814) in view of *MacLean* (US 7,287,071).</u>

a.   **Per claim 52,** *Cox et al* teach the method of claim 50 as applied above, yet fail to explicitly teach wherein the intermediary device is a switch capable of performing load balancing for the access providing hosts. However, *MacLean* teaches a load balancing switch or router that performs filtering of the communicated network data (*col.14 line 13-col.15 line 23*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Cox et al* and

MacLean for the purpose of utilizing a router or switch capable of blocking and filtering

certain network communication data as well as performing load balancing to evenly

distribute the request packets to the network server; because it is well-known in the

networking art that routers and switches function as gateway devices permitting and

restricting data to protect the integrity of the data on the network, while it is also common

for routers and switches to provide load balancing techniques which prevents the servers

from being overloaded with communication transactions.

    b.   **Claims 60, 68, 83 and 88** claim limitations that are equivalent in scope to

the limitation of claim 52, and are therefore rejected under the same basis.

IX. **Claims 55 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Cox et al* (US 6,738,814) in view of *Olnowich et al* (US 5,444,705).**

    a.   **Per claim 55,** *Cox et al* teach the method of claim 50 as applied above, yet

fail to further teach wherein blocking, at the intermediary device, the first connection

transaction request further comprises delaying termination of a partially-completed

connection transaction based on the first connection transaction request to allow the

intermediary device to continue monitoring communications from the requestor device.

However *Olnowich et al* teach delaying termination of a connection transaction by using

a WAIT response which allows the connections requests to continue being monitored

acceptance instead of rejected (*col.9 lines 54-65, col.10 lines 32-43*). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to combine

the teachings of *Cox et al* and *Olnowich* for the purpose of delaying termination of a

connection request, because doing so provides an extended time period for collecting

additional information regarding the connection request by continuing to monitor the request for analysis.

       b.   **Claim 63** claims limitations that are equivalent in scope to the limitations of claim 55, and is therefore rejected under the same basis.

Conclusion

X.   The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: Halasz et al (7464410), Cantrell et al (7454499), Chen et al (7398317), Goldstone (7301899), Alam et al (7069313).

Examiner's Note: Examiner has cited particular columns and line numbers in the reference(s) applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the Applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the cited passages as taught by the prior art or relied upon by the examiner. Should Applicant amend the claims of the claimed invention, it is respectfully requested that Applicant clearly indicate the portion(s) of Applicant's specification that support the amended claim language for ascertaining the metes and bounds of Applicant's claimed invention.

XI.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to KRISTIE D. SHINGLES whose telephone number is (571)272-3888. The examiner can normally be reached on Monday 9:00am-6:30pm.

       If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kristie D. Shingles/
Examiner, Art Unit 2444